Contents of volume 64

Vol. 64, Nos. 1–2 May (I+II) 2007

Overexpression of salicylic acid carboxyl methyltransferase reduces salicylic acid-mediated pathogen resistance in *Arabidopsis thaliana*
Y.J. Koo, M.A. Kim, E.H. Kim, J.T. Song, C. Jung, J.-K. Moon, J.-H. Kim, H.S. Seo, S.I. Song, J.-K. Kim, J.S. Lee, J.-J. Cheong, Y.D. Choi 1–15

Identification of a novel gene (*Hsdr4*) involved in water-stress tolerance in wild barley
T. Suprunova, T. Krugman, A. Distelfeld, T. Fahima, E. Nevo, A. Korol 17–34

The expression of iron homeostasis-related genes during rice germination
T. Nozoye, H. Inoue, M. Takahashi, Y. Ishimaru, H. Nakanishi, S. Mori, N.K. Nishizawa 35–47

Expression of an NADP-malic enzyme gene in rice (*Oryza sativa*. L) is induced by environmental stresses; over-expression of the gene in Arabidopsis confers salt and osmotic stress tolerance
S. Liu, Y. Cheng, X. Zhang, Q. Guan, S. Nishiuchi, K. Hase, T. Takano 49–58

IBR3, a novel peroxisomal acyl-CoA dehydrogenase-like protein required for indole-3-butyric acid response
B.K. Zolman, M. Nyberg, B. Bartel 59–72

Yeast two-hybrid map of *Arabidopsis* TFIID
S.J. Lawit, K. O'Grady, W.B. Gurley, E. Czarnecka-Verner 73–87

***Cladosporium fulvum* CfHNNI1 induces hypersensitive necrosis, defence gene expression and disease resistance in both host and nonhost plants**
X.-Z. Cai, X. Zhou, Y.-P. Xu, M.H.A.J. Joosten, P.J.G.M. de Wit 89–101

Improved expression of recombinant GFP using a replicating vector based on *Beet curly top virus* in leaf-disks and infiltrated *Nicotiana benthamiana* leaves
K.I. Kim, G. Sunter, D.M. Bisaro, I.S. Chung 103–112

The *Arabidopsis thaliana* GSK3/Shaggy like kinase AtSK3-2 modulates floral cell expansion
G. Claisse, B. Charrier, M. Kreis 113–124

Promoter analysis and immunolocalisation show that puroindoline genes are exclusively expressed in starchy endosperm cells of wheat grain
P.R. Wiley, P. Tosi, A. Evrard, A. Lovegrove, H.D. Jones, P.R. Shewry 125–136

Plastid marker gene excision by the phiC31 phage site-specific recombinase
C. Kittiwongwattana, K. Lutz, M. Clark, P. Maliga 137–143

Functional characterization of two *p*-coumaroyl ester 3′-hydroxylase genes from coffee tree: evidence of a candidate for chlorogenic acid biosynthesis
V. Mahesh, R. Million-Rousseau, P. Ullmann, N. Chabrillange, J. Bustamante, L. Mondolot, M. Morant, M. Noirot, S. Hamon, A. de Kochko, D. Werck-Reichhart, C. Campa 145–159

Identification of cellulose synthase AtCesA7 (IRX3) in vivo phosphorylation sites—a potential role in regulating protein degradation
N.G. Taylor 161–171

Cell- and tissue-specific localization and regulation of the epithiospecifier protein in *Arabidopsis thaliana*
M. Burow, M. Rice, B. Hause, J. Gershenzon, U. Wittstock 173–185

Towards identifying the full set of genes expressed during cassava post-harvest physiological deterioration
K. Reilly, D. Bernal, D.F. Cortés, R. Gómez-Vásquez, J. Tohme, J.R. Beeching 187–203

Altered ABA, proline and hydrogen peroxide in an Arabidopsis glutamate:glyoxylate aminotransferase mutant
P.E. Verslues, Y.-S. Kim, J.-K. Zhu 205–217

A novel mutated acetolactate synthase gene conferring specific resistance to pyrimidinyl carboxy herbicides in rice
A. Okuzaki, T. Shimizu, K. Kaku, K. Kawai, K. Toriyama 219–224

Vol. 64, No. 3 June 2007

Functional analysis of *Arabidopsis* genes involved in mitochondrial iron–sulfur cluster assembly
A.P.G. Frazzon, M.V. Ramirez, U. Warek, J. Balk, J. Frazzon, D.R. Dean, B.S.J. Winkel 225–240

Cloning and molecular characterisation of a Δ^8-sphingolipid-desaturase from *Nicotiana tabacum* closely related to Δ^6-acyl-desaturases
F. García-Maroto, J.A. Garrido-Cárdenas, L.V. Michaelson, J.A. Napier, D.L. Alonso 241–250

Tomato linalool synthase is induced in trichomes by jasmonic acid
C.C.N. van Schie, M.A. Haring, R.C. Schuurink 251–263

Heterologous expression of two *Medicago truncatula* putative ERF transcription factor genes, *WXP1* and *WXP2*, in *Arabidopsis* led to increased leaf wax accumulation and improved drought tolerance, but differential response in freezing tolerance
J.-Y. Zhang, C.D. Broeckling, L.W. Sumner, Z.-Y. Wang 265–278

Methyl allyl ether formation in plants: novel *S*-adenosyl L-methionine:coniferyl alcohol 9-*O*-methyltransferase from suspension cultures of three *Linum* species
A. Berim, B. Schneider, M. Petersen 279–291

Salicylic acid inhibits gibberellin-induced alpha-amylase expression and seed germination via a pathway involving an abscisic-acid-inducible *WRKY* gene
Z. Xie, Z.-L. Zhang, S. Hanzlik, E. Cook, Q.J. Shen 293–303

Transcriptional regulation of genes involved in the pathways of biosynthesis and supply of methyl units in response to powdery mildew attack and abiotic stresses in wheat
N.H. Bhuiyan, W. Liu, G. Liu, G. Selvaraj, Y. Wei, J. King 305–318

Mitochondrial acyl carrier proteins in *Arabidopsis thaliana* are predominantly soluble matrix proteins and none can be confirmed as subunits of respiratory Complex I
E.H. Meyer, J.L. Heazlewood, A.H. Millar 319–327

A barley activation tagging system
M.A. Ayliffe, M. Pallotta, P. Langridge, A.J. Pryor 329–347

Vol. 64, No. 4 July (I) 2007

Genome-wide identification and expression analysis of rice cell cycle genes
J. Guo, J. Song, F. Wang, X.S. Zhang 349–360

Transgenic Indian mustard (*Brassica juncea*) plants expressing an *Arabidopsis* phytochelatin synthase (*AtPCS1*) exhibit enhanced As and Cd tolerance
K. Gasic, S.S. Korban 361–369

Improved drought tolerance without undesired side effects in transgenic plants producing trehalose
S. Karim, H. Aronsson, H. Ericson, M. Pirhonen, B. Leyman, B. Welin, E. Mäntylä, E.T. Palva, P. Van Dijck, K.-O. Holmström 371–386

Activation of the imprinted Polycomb Group *Fie1* gene in maize endosperm requires demethylation of the maternal allele
P. Hermon, K.-o. Srilunchang, J. Zou, T. Dresselhaus, O.N. Danilevskaya 387–395

Reduction of protease inhibitor activity by expression of a mutant Bowman-Birk gene in soybean seed
D. Livingstone, V. Beilinson, M. Kalyaeva, M.A. Schmidt, E.M. Herman, N.C. Nielsen 397–408

Regulatory gene candidates and gene expression analysis of cold acclimation in winter and spring wheat
A.F. Monroy, A. Dryanova, B. Malette, D.H. Oren, M.R. Farajalla, W. Liu, J. Danyluk, L.W.C. Ubayasena, K. Kane, G.J. Scoles, F. Sarhan, P.J. Gulick 409–423

Transcriptional profiling by cDNA-AFLP reveals novel insights during methyl jasmonate, wounding and insect attack in *Brassica napus*
B.R. Sarosh, J. Meijer 425–438

Molecular characterization of two *Arabidopsis thaliana* glycosyltransferase mutants, *rra1* and *rra2*, which have a reduced residual arabinose content in a polymer tightly associated with the cellulosic wall residue
J. Egelund, N. Obel, P. Ulvskov, N. Geshi, M. Pauly, A. Bacic, B.L. Petersen 439–451

The SebHLH transcription factor mediates trans-activation of the SeFAD2 gene promoter through binding to E- and G-box elements
M.J. Kim, J.-K. Kim, J.S. Shin, M.C. Suh 453–466

Structural features of GmIRCHS, candidate of the I gene inhibiting seed coat pigmentation in soybean: implications for inducing endogenous RNA silencing of chalcone synthase genes
A. Kasai, K. Kasai, S. Yumoto, M. Senda 467–479

Vol. 64, No. 5 July (II) 2007

Chloroplast ribosome release factor 1 (AtcpRF1) is essential for chloroplast development
R. Motohashi, T. Yamazaki, F. Myouga, T. Ito, K. Ito, M. Satou, M. Kobayashi, N. Nagata, S. Yoshida, A. Nagashima, K. Tanaka, S. Takahashi, K. Shinozaki 481–497

A functional genomics approach to (iso)flavonoid glycosylation in the model legume *Medicago truncatula*
L.V. Modolo, J.W. Blount, L. Achnine, M.A. Naoumkina, X. Wang, R.A. Dixon 499–518

Protein targeting into complex diatom plastids: functional characterisation of a specific targeting motif
A. Gruber, S. Vugrinec, F. Hempel, S.B. Gould, U.-G. Maier, P.G. Kroth 519–530

Expression of a grape calcium-dependent protein kinase ACPK1 in *Arabidopsis thaliana* promotes plant growth and confers abscisic acid-hypersensitivity in germination, postgermination growth, and stomatal movement
X.-C. Yu, S.-Y. Zhu, G.-F. Gao, X.-J. Wang, R. Zhao, K.-Q. Zou, X.-F. Wang, X.-Y. Zhang, F.-Q. Wu, C.-C. Peng, D.-P. Zhang 531–538

Molecular identification and characterization of the tomato flagellin receptor LeFLS2, an orthologue of *Arabidopsis* FLS2 exhibiting characteristically different perception specificities
S. Robatzek, P. Bittel, D. Chinchilla, P. Köchner, G. Felix, S.-H. Shiu, T. Boller 539–547

Transgenic cassava resistance to *African cassava mosaic virus* is enhanced by viral DNA-A bidirectional promoter-derived siRNAs
H. Vanderschuren, R. Akbergenov, M.M. Pooggin, T. Hohn, W. Gruissem, P. Zhang 549–557

The moss genes *PpSKI1* and *PpSKI2* encode nuclear SnRK1 interacting proteins with homologues in vascular plants
M. Thelander, A. Nilsson, T. Olsson, M. Johansson, P.-A. Girod, D.G. Schaefer, J.-P. Zrÿd, H. Ronne 559–573

AtCYT-INV1, a neutral invertase, is involved in osmotic stress-induced inhibition on lateral root growth in *Arabidopsis*
X. Qi, Z. Wu, J. Li, X. Mo, S. Wu, J. Chu, P. Wu 575–587

New insights into *Oryza* genome evolution: high gene colinearity and differential retrotransposon amplification
S. Zhang, Y.Q. Gu, J. Singh, D. Coleman-Derr, D.S. Brar, N. Jiang, P.G. Lemaux 589–600

Biochemical properties of a plastidial DNA polymerase of rice
R. Takeuchi, S. Kimura, A. Saotome, K. Sakaguchi 601–611

Increased calcium bioavailability in mice fed genetically engineered plants lacking calcium oxalate
J. Morris, P.A. Nakata, M. McConn, A. Brock, K.D. Hirschi 613–618

Erratum
Amplicon-plus Targeting Technology (APTT) for rapid production of a highly unstable vaccine protein in tobacco plants
K. Azhakanandam, S.M. Weissinger, J.S. Nicholson, R. Qu, A.K. Weissinger 619

Vol. 64, No. 6 August 2007

Transgenic *Arabidopsis* and tobacco plants overexpressing an aquaporin respond differently to various abiotic stresses
J.Y. Jang, S.H. Lee, J.Y. Rhee, G.C. Chung, S.J. Ahn, H. Kang 621–632

***Arabidopsis EIN2* modulates stress response through abscisic acid response pathway**
Y. Wang, C. Liu, K. Li, F. Sun, H. Hu, X. Li, Y. Zhao, C. Han, W. Zhang, Y. Duan, M. Liu, X. Li 633–644

Molecular evolution and genome divergence at *RPB2* gene of the St and H genome in *Elymus* species
G. Sun, T. Daley, Y. Ni 645–655

Developmental defects and seedling lethality in apyrase *AtAPY1* and *AtAPY2* double knockout mutants
C. Wolf, M. Hennig, D. Romanovicz, I. Steinebrunner 657–672

Isolation of candidate genes for apomictic development in buffelgrass (*Pennisetum ciliare*)
M. Singh, B.L. Burson, S.A. Finlayson 673–682

Developmental and stimulus-induced expression patterns of Arabidopsis calmodulin-like genes *CML37*, *CML38* and *CML39*
B. Vanderbeld, W.A. Snedden 683–697

Comparison between a coffee single copy chromosomal region and *Arabidopsis* duplicated counterparts evidenced high level synteny between the coffee genome and the ancestral *Arabidopsis* genome
L. Mahé, M.-C. Combes, P. Lashermes 699–711

Isolation and characterization of expressed sequence tags (ESTs) from subtracted cDNA libraries of *Pennisetum glaucum* seedlings
R.N. Mishra, P.S. Reddy, S. Nair, G. Markandeya, A.R. Reddy, S.K. Sopory, M.K. Reddy 713–732

***HEMA* RNAi silencing reveals a control mechanism of ALA biosynthesis on Mg chelatase and Fe chelatase**
B. Hedtke, A. Alawady, S. Chen, F. Börnke, B. Grimm 733–742

Contents of volume 64

Author index of volume 64

Author index of volume 64

Achnine, L., 499
Ahn, S.J., 621
Akbergenov, R., 549
Alawady, A., 733
Alonso, D.L., 241
Aronsson, H., 371
Ayliffe, M.A., 329
Azhakanandam, K., 619

Bacic, A., 439
Balk, J., 225
Bartel, B., 59
Beeching, J.R., 187
Beilinson, V., 397
Berim, A., 279
Bernal, D., 187
Bhuiyan, N.H., 305
Bisaro, D.M., 103
Bittel, P., 539
Blount, J.W., 499
Boller, T., 539
Börnke, F., 733
Brar, D.S., 589
Brock, A., 613
Broeckling, C.D., 265
Burow, M., 173
Burson, B.L., 673
Bustamante, J., 145

Cai, X.-Z., 89
Campa, C., 145
Chabrillange, N., 145
Charrier, B., 113
Chen, S., 733
Cheng, Y., 49
Cheong, J.-J., 1
Chinchilla, D., 539
Choi, Y.D., 1
Chu, J., 575
Chung, G.C., 621
Chung, I.S., 103
Claisse, G., 113
Clark, M., 137
Coleman-Derr, D., 589
Combes, M.-C., 699
Cook, E., 293
Cortés, D.F., 187
Czarnecka-Verner, E., 73

Daley, T., 645
Danilevskaya, O.N., 387
Danyluk, J., 409
de Kochko, A., 145
de Wit, P.J.G.M., 89
Dean, D.R., 225
Distelfeld, A., 17
Dixon, R.A., 499
Dresselhaus, T., 387
Dryanova, A., 409
Duan, Y., 633

Egelund, J., 439
Ericson, H., 371
Evrard, A., 125

Fahima, T., 17
Farajalla, M.R., 409
Felix, G., 539
Finlayson, S.A., 673
Frazzon, A.P.G., 225
Frazzon, J., 225

Gao, G.-F., 531
García-Maroto, F., 241
Garrido-Cárdenas, J.A., 241
Gasic, K., 361
Gershenzon, J., 173
Geshi, N., 439
Girod, P.-A., 559
Gómez-Väsquez, R., 187
Gould, S.B., 519
Grimm, B., 733
Gruber, A., 519
Gruissem, W., 549
Gu, Y.Q., 589
Guan, Q., 49
Gulick, P.J., 409
Guo, J., 349
Gurley, W.B., 73

Hamon, S., 145
Han, C., 633
Hanzlik, S., 293
Haring, M.A., 251
Hase, K., 49
Hause, B., 173
Heazlewood, J.L., 319
Hedtke, B., 733
Hempel, F., 519
Hennig, M., 657
Herman, E.M., 397
Hermon, P., 387
Hirschi, K.D., 613
Hohn, T., 549
Holmström, K.-O., 371
Hu, H., 633

Inoue, H., 35
Ishimaru, Y., 35
Ito, K., 481
Ito, T., 481

Jang, J.Y., 621
Jiang, N., 589
Johansson, M., 559
Jones, H.D., 125
Joosten, M.H.A.J., 89
Jung, C., 1

Kaku, K., 219
Kalyaeva, M., 397
Kane, K., 409
Kang, H., 621
Karim, S., 371
Kasai, A., 467
Kasai, K., 467
Kawai, K., 219
Kim, E.H., 1
Kim, J.-H., 1
Kim, J.-K., 1, 453
Kim, K.I., 103
Kim, M.A., 1
Kim, M.J., 453
Kim, Y.-S., 205
Kimura, S., 601
King, J., 305
Kittiwongwattana, C., 137
Kobayashi, M., 481
Köchner, P., 539
Koo, Y.J., 1
Korban, S.S., 361
Korol, A., 17
Kreis, M., 113
Kroth, P.G., 519
Krugman, T., 17

Langridge, P., 329
Lashermes, P., 699
Lawit, S.J., 73
Lee, J.S., 1
Lee, S.H., 621
Lemaux, P.G., 589
Leyman, B., 371
Li, J., 575
Li, K., 633
Li, X., 633
Liu, C., 633
Liu, G., 305
Liu, M., 633
Liu, S., 49
Liu, W., 305, 409
Livingstone, D., 397
Lovegrove, A., 125
Lutz, K., 137

Mahé, L., 699
Mahesh, V., 145
Maier, U.-G., 519
Malette, B., 409
Maliga, P., 137
Mäntylä, E., 371
Markandeya, G., 713
McConn, M., 613
Meijer, J., 425
Meyer, E.H., 319
Michaelson, L.V., 241
Millar, A.H., 319
Million-Rousseau, R., 145
Mishra, R.N., 713
Mo, X., 575
Modolo, L.V., 499
Mondolot, L., 145
Monroy, A.F., 409
Moon, J.-K., 1
Morant, M., 145
Mori, S., 35
Morris, J., 613
Motohashi, R., 481
Myouga, F., 481

Nagashima, A., 481
Nagata, N., 481
Nair, S., 713
Nakanishi, H., 35
Nakata, P.A., 613
Naoumkina, M.A., 499
Napier, J.A., 241
Nevo, E., 17
Ni, Y., 645
Nicholson, J.S., 619
Nielsen, N.C., 397
Nilsson, A., 559
Nishiuchi, S., 49
Nishizawa, N.K., 35
Noirot, M., 145
Nozoye, T., 35
Nyberg, M., 59

Obel, N., 439
Okuzaki, A., 219
Olsson, T., 559
Oren, D.H., 409
O'Grady, K., 73

Pallotta, M., 329
Palva, E.T., 371
Pauly, M., 439
Peng, C.-C., 531
Petersen, B.L., 439
Petersen, M., 279
Pirhonen, M., 371
Pooggin, M.M., 549
Pryor, A.J., 329

Qi, X., 575
Qu, R., 619

Ramirez, M.V., 225
Reddy, A.R., 713
Reddy, M.K., 713
Reddy, P.S., 713
Reilly, K., 187
Rhee, J.Y., 621
Rice, M., 173
Robatzek, S., 539
Romanovicz, D., 657
Ronne, H., 559

Sakaguchi, K., 601
Saotome, A., 601
Sarhan, F., 409

Sarosh, B.R., 425
Satou, M., 481
Schaefer, D.G., 559
Schmidt, M.A., 397
Schneider, B., 279
Schuurink, R.C., 251
Scoles, G.J., 409
Selvaraj, G., 305
Senda, M., 467
Seo, H.S., 1
Shen, Q.J., 293
Shewry, P.R., 125
Shimizu, T., 219
Shin, J.S., 453
Shinozaki, K., 481
Shiu, S.-H., 539
Singh, J., 589
Singh, M., 673
Snedden, W.A., 683
Song, J., 349
Song, J.T., 1
Song, S.I., 1
Sopory, S.K., 713
Srilunchang, K.-o., 387
Steinebrunner, I., 657
Suh, M.C., 453
Sumner, L.W., 265
Sun, F., 633
Sun, G., 645
Sunter, G., 103
Suprunova, T., 17

Takahashi, M., 35
Takahashi, S., 481
Takano, T., 49
Takeuchi, R., 601
Tanaka, K., 481
Taylor, N.G., 161
Thelander, M., 559
Tohme, J., 187
Toriyama, K., 219
Tosi, P., 125

Ubayasena, L.W.C., 409
Ullmann, P., 145
Ulvskov, P., 439

Van Dijck, P., 371
Vanderbeld, B., 683
van Schie, C.C.N., 251
Vanderschuren, H., 549
Verslues, P.E., 205
Vugrinec, S., 519

Wang, F., 349
Wang, X., 499
Wang, X.-F., 531
Wang, X.-J., 531
Wang, Y., 633
Wang, Z.-Y., 265
Warek, U., 225
Wei, Y., 305
Weissinger, A.K., 619
Weissinger, S.M., 619
Welin, B., 371
Werck-Reichhart, D., 145
Wiley, P.R., 125
Winkel, B.S.J., 225
Wittstock, U., 173
Wolf, C., 657
Wu, F.-Q., 531
Wu, P., 575
Wu, S., 575
Wu, Z., 575

Xie, Z., 293
Xu, Y.-P., 89

Yamazaki, T., 481
Yoshida, S., 481
Yu, X.-C., 531
Yumoto, S., 467

Zhang, D.-P., 531
Zhang, J.-Y., 265
Zhang, P., 549
Zhang, S., 589
Zhang, W., 633
Zhang, X., 49
Zhang, X.S., 349
Zhang, X.-Y., 531
Zhang, Z.-L., 293
Zhao, R., 531
Zhao, Y., 633
Zhou, X., 89
Zhu, J.-K., 205
Zhu, S.-Y., 531
Zolman, B.K., 59
Zou, J., 387
Zou, K.-Q., 531
Zrýd, J.-P., 559